1.4.5 2030 Buildings Energy End-Use Carbon Dioxide Emissions Splits, by Fuel Type (Million Metric Tons) (1) Natural Petroleum Distil. Resid. LPG Oth(2) Total Electricity (3) Coal Total Percent <u>Gas</u> 281.2 102.6 476.3 16.3% Space Heating (4) 53.8 8.1 14.5 7.4 83.9 8.6 Lighting 336.3 336.3 11.5% Space Cooling 1.1 303.3 304.4 10.4% Electronics (6) 269.6 269.6 9.2% Water Heating 96.8 8.7 2.7 11.3 108.5 216.6 7.4% 4.9% Refrigeration (5) 143.7 143.7 Computers 93.7 93.7 3.2% Wet Clean (8) 4.4 78.7 83.1 2.8% Cooking 31.1 2.2 2.2 32.1 65.4 2.2% Ventilation (7) 42.4 42.4 1.4% Other (9) 32.7 1.6 3.8 26.8 605.5 665.0 22.7% 21.4 Adjust to SEDS (10) 35.8 228.6 7.8% 13.8 13.8 179.0 Total 77.9 8.1 40.7 11.2 137.9 8.6 2,295.4 **2,925.1** 100% 483.2

Note(s):

1) Emissions assume complete combustion from energy consumption, excluding gas flaring, coal mining, and cement production. Emissions exclude wood since it is assumed that the carbon released from combustion is reabsorbed in a future carbon cycle.

2) Includes kerosene space heating (7.4 MMT) and motor gasoline other uses (3.8 MMT). 3) Excludes electric imports by utilities.

4) Includes residential furnace fans (14.6 MMT). 6) Includes color television (101.5 MMT) and other office equipment(168.2 MMT).

5) Includes refrigerators (123.2 MMT) and freezers (20.5 MMT). 8) Includes clothes washers (5.0 MMT), natural gas clothes dryers (4.4 MMT), electric clothes dryers (54.2 MMT), and dishwashers (19.5 MMT). Does not include water heating energy. 7) Commercial only; residential fan and pump energy use included proportionately in space heating and cooling. 9) Includes residential small electric devices, heating elements, motors, swimming pool heaters, hot tub heaters, outdoor grills, and natural gas outdoor lighting. Includes commercial service station equipment, ATMs, telecommunications equipment, medical equipment, pumps, emergency electric generators, and manufacturing performed in commercial buildings. 10) Emissions related to a discrepancy between data sources. Energy attributable to the buildings sector, but not directly to specific end-uses.

Source(s): EIA, Annual Energy Outlook 2008, Mar. 2008, Table A2, p. 117-119, Table A4, p. 122-123 and Table A5, p. 134-135 for energy consumption, and Table A18, p. 143-144 for emissions; EIA, National Energy Modeling System for AEO 2008, Feb. 2008; EIA, Assumptions to the AEO 2008, April 2008, Table 2, p. 10 for emission coefficients;